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Approved for unchrough 19/30/2000. OMB 0651-0031
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	tion Act of 1999, no perso						
			Application Number 09/517,705				
TRANSMITTAL FORM (to be used for all correspondence after initial filing)			Filing Date	March 2, 2000			
			First Named Inventor	Chunlin Liang			
			Group Art Unit	2811			
			Examiner Name	Loke	e, S.		
Total Number of Page	s in This Submission	7	Attorney Docket Number	4239	90P5771D		
		ENCLOS	SURES (check all tha	t appl	y)		
Fee Transmittal I	Form	Assignm (for an A	nent Papers Application)		After Allowance Communication to Group		
Fee Attach	ed	Drawing	(s)		Appeal Communication to Boa of Appeals and Interferences		
Amendment / Response  After Final		Licensing-related Papers			Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)		
		Petition		Proprietary Information			
	declaration(s)	Petition	to Convert a nal Application		Status Letter		
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Information Dis	closure Statement	Termina	l Disclaimer	1 [	Return Postcard —		
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	SIGNATUR	E OF APPLIC	ANT, ATTORNEY, OR	AGENT			
Firm	Daniel J. Burn	s, Reg. No. P	-50,222				
or Individual name	BLAKELY, SO	OKOLOFF, TA	AYLOR & ZAFMAN				
Signature	Id	1/2					
Date	February 19, 2	002					
	CERTIFICATE O	F MAILING (C	OR TRANSMISSION)				
	correspondence is be	ing deposited wi	th the United States Postal S		s		
First Class mail with su Patents, Washington, D		envelope address	sed to: Assistant Commission	ner for	February 19, 2002		
Typed or printed name	Diane Mart						
Signature	Dia_*	Thurs	D	ate	02/19/02		

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PTO/SB/17 (10-01)

Approved for the forcing had 10/31/2002. OMB 0651-0032

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE a collection of information unless it displays a valid OMB control number.

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FEÉ TRANSMITTAL	Complete if Known					
· · · · · · · · · · · · · · · · · · ·	Application Number	09/517,705 03/02/00				
for FY 2002	Filing Date					
Patent fees are subject to annual revision.	First Named Inventor	Chunlin Liang, et al.				
	Examiner Name	Loke, S.				
Applicant claims small entity status. See 37 CFR 1.27	Group Art Unit	2811				
TOTAL AMOUNT OF PAYMENT (\$) 0.00	Attorney Docket Number	42390P5771D				

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Deposit	127	50	227		Surcharge - late provisional filing fee or	3
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The Commissioner is authorized to: (check all that apply)	139		139		Non-English specification	
Charge fee(s) indicated below Credit any overpayments		·			For filing a request for ex parte reexamination	`
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FEE CALCULATION	116	400	216	200	Extension for response within second mont	th
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	119	320	219	160	Notice of Appeal	
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106 330 206 165 Design filing fee	121		221	_	Request for oral hearing	
107 510 207 255 Plant filing fee	138	,			Petition to institute a public use proceeding	
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Independent 1 - 3** = 0 x 84.00 = \$0.00	123		123		Petitions related to provisional applications	
Multiple Dependent Claims =	126		126		Submission of Information Disclosure Stmt	
	581	40	581		Recording each patent assignment per property (times number of properties)	
Large Entity Small Entity	146	740	246		Filing a submission after final rejection	
Fee Fee Fee Fee Description Code (\$) Code (\$)					(37 CFR 1.129(a))	
103 18 203 9 Claims in excess of 20	149	740	249		For each additional invention to be	
102 84 202 42 Independent claims in excess of 3	l				examined (37 CFR 1.129(b))	
104 280 204 140 Multiple Dependent claim	179	740	279	370	Request for Continued Examination (RCE)	
109 84 209 42 **Reissue independent claims	169	900	160		Request for expedited examination	
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Typed or Printed Name	Daniel J. Burn	s, Reg. No. P-50,222	Registration No. (Attorney/Agent)	Telephone	(310) 207-3800
Signature (	4)1	M		Date	02/19/02



Our Ref. No.: 042390P5771D

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application for:

Chunlin Liang and Gang Bai

Serial No.: 09/517,705

Filed: March 2, 2000

For: **COMPLEMENTARY METAL GATE** 

ELECTRODE TECHNOLOGY

Examiner: Loke, S.

Art Unit: 2811

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## **RESPONSE TO FINAL OFFICE ACTION**

**Assistant Commissioner for Patents** 

Box: AF

Washington, D.C. 20231

Dear Sir:

In response to the Final Office Action dated January 18, 2002, Applicants respectfully request consideration of the Remarks which follow.

### **REMARKS**

In response to the above-identified Final Office Action, Applicants seek reconsideration thereof. In this Response, Claims 1-2 and 16-17 are pending.

# I. Claims Rejected Under 35 U.S.C. §112, second paragraph

The Examiner rejects Claim 17 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Regarding Claim 17, the Examiner contends that it is unclear which materials have a work function corresponding to P-type silicon and which have a work function corresponding to N-type silicon. In response, Applicants note that the work function of the materials in Claim 17 are well-known to those in the art. As one example, see the table entitled Electron Work Functions of the Elements beginning on page E-89 in the *CRC Handbook of* 

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Chemistry and Physics (67th Ed.) Accordingly, Applicants respectfully request withdrawal of the rejection of Claim 17.

# II. Claims Rejected Under 35 U.S.C. § 102(b)

The Examiner rejects Claims 1-2 and 16 under 35 U.S.C. § 102(b) as being anticipated by Dash et al, U.S. Patent No. 4,399,605 ("<u>Dash</u>"). Applicants respectfully traverse this rejection.

In order to anticipate a claim, the relied upon reference must disclose every limitation of the claim. Among other limitations, Claim 1 recites that the first metal gate electrode and the second metal gate electrode are separately disposed in respective ones of the first area and the second area of the semiconductor substrate.

In making the rejection, the Examiner relies on <u>Dash</u> to show a circuit device comprising two metal gate electrodes 56 and 50. (*See* <u>Dash</u>, Fig. 9.) The Examiner argues that the first metal gate electrode (a portion of layer 56 formed above channel region 52) and the second metal gate electrode 50 are separately disposed in respective ones of a first area (P-type region 52) and a second area (N-type region 54) of the semiconductor substrate. However, Applicants note that metal gate electrode 56 is formed above <u>both</u> P-type region 52 and N-type region 54 of the semiconductor substrate since the conductive line 56 acts as the gate electrode for the N channel transistor <u>and</u> as a contact with the platinum silicide gate electrode 50 of the P channel transistor. (*See* <u>Dash</u>, Fig. 9, col. 4, lines 17-21.) Thus, <u>Dash</u> fails to teach or suggest that the first metal gate electrode and the second metal gate electrode are <u>separately disposed</u> in respect of ones of a first area and a second area of the semiconductor substrate.

Accordingly, Applicants respectfully request withdrawal of the rejection of independent Claim 1. Claims 2 and 6 depend from Claim 1. As such, the dependent claims are not anticipated for at least the same reasons as Claim 1.

## III. Claims Rejected under 35 U.S.C. §103(a)

The Examiner rejects Claim 17 under 35 U.S.C. §103(a) as being obvious over <u>Dash</u>. Applicants respectfully traverse this rejection.

The Examiner's obligation in making a *prima facie* case of obviousness requires the Examiner to show that the prior art, in combination, teaches or suggests all elements of the claimed invention. Applicants respectfully submit that the Examiner has failed to set forth a *prima facie* case of obviousness.

Claim 17 depends from independent Claim 1. As argued above, <u>Dash</u> fails to teach or suggest that the first metal gate electrode and the second metal gate electrode are separately disposed in respective ones of the first area and the second area of the semiconductor substrate.

Thus, Claim 17 is not anticipated for at least the same reasons as independent Claim 1. Accordingly, Applicants respectfully request withdrawal of the rejection of Claim 17.

## **CONCLUSION**

If necessary, the Commissioner is hereby authorized in this, concurrent and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2666 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17, particularly, extension of time fees.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Dated: February 19, 2002

Daniel J. Burns; Reg. No. P-50,222

12400 Wilshire Blvd. Seventh Floor Los Angeles, California 90025 (310) 207-3800 **CERTIFICATE OF MAILING:** 

I hereby certify that this correspondence is being deposited as First Class Mail with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Box AF, Washington, D.C. 20231 on

February/9, 2002.

Diane Martinez

February 19, 2002